

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
WO 2005/014281 A1

(51) International Patent Classification<sup>7</sup>: B32B 27/04 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/US2004/021053

(22) International Filing Date: 29 June 2004 (29.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 10/627,847 25 July 2003 (25.07.2003) US

(71) Applicant: BUILDING MATERIALS INVESTMENT CORPORATION [US/US]; 300 Delaware Avenue, Suite 303, Wilmington, DE 19801 (US).

(72) Inventor: YANG, Li-Ying; 34 Windemere Ct., Whippany, NJ 07981 (US).

(74) Agents: MAUE, Marilyn, J. et al.; Legal Department, Bld. 8, Gaf Materials Corporation, 1361 Alps Road, Wayne, NJ 07470 (US).

**Published:**  
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/014281 A1

(54) Title: SINGLE PLY THERMOPLASTIC POLYOLEFIN (TPO) ROOFING MEMBRANES HAVING SUPERIOR HEAT SEAM PEEL STRENGTHS AND LOW TEMPERATURE FLEXIBILITY

(57) Abstract: Roofing membranes of single ply heat seamable thermoplastic polyolefin (TPO) sheets are made with a metallocene-catalyzed polyethylene (MPO) blend. The membranes exhibit superior heat seam peel strengths and low temperature flexibility.